

**NOT FOR PUBLICATION**

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY**

ALBERTA TELECOMMUNICATIONS  
RESEARCH CENTRE, d/b/a TR LABS,

Plaintiff,

v.

AT&T CORPORATION,

Defendant.

Civil Action No.:  
09-3883 (PGS)

MEMORANDUM & ORDER

ALBERTA TELECOMMUNICATIONS  
RESEARCH CENTRE, d/b/a TR LABS,

Plaintiff,

v.

VERIZON SERVICES CORP.,

Defendant.

Civil Action No.:  
10-1132 (PGS)

MEMORANDUM & ORDER

**SHERIDAN, U.S.D.J.**

This matter comes before the Court by way of AT&T's motion for partial summary judgment for invalidity based on indefiniteness under 35 U.S.C. § 112. Specifically, AT&T argues that the following claims within TR Labs' patents contain terms that are indefinite, and as a result, invalid as a matter of law: Claims 1 and 6 in U.S. Patent No. 7,260,059 ("059 Patent"), Claim 1 of U.S. Patent No. 6,404,734 ("734 Patent"), Claim 7 of U.S. Patent No. 6,914,880 ("880 Patent"), and Claims 6-8 of U.S. Patent No. 4,956,835 ("835 Patent"). Verizon joins in AT&T's motion and asserts indefiniteness against Claims 1 and 6 of the '059 Patent and Claim 7 of the '880 Patent.

## **I. Indefiniteness Standard**

35 U.S.C. § 112 requires a patent's specification to "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112(b). The claims determine the boundaries of the patentee's right to exclude. *Halliburton Energy Servs. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008). Therefore, "the patent statute requires that the scope of the claims be sufficiently definite to inform the public of the bounds of the protected invention, i.e., what subject matter is covered by the exclusive rights of the patent. Otherwise, competitors cannot avoid infringement, defeating the public notice function of patent claims." *Id.*(internal citations omitted).

Claims are held indefinite if "one of ordinary skill in the relevant art could not discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art." *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010). When a claim term is indefinite because the term is insolubly ambiguous, it renders the claim invalid. *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1382 (Fed. Cir. 2009). Invalidating a patent claim for indefiniteness under 35 U.S.C. § 112 requires clear and convincing evidence that one skilled in the art could not discern the boundaries of the claim. *Halliburton*, 514 F.3d at 1249. However, claims are not indefinite merely because they are difficult to construe. *Id.* "If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree . . . the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds." *Id.* (quoting *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

## **II. The '059 Patent**

The '059 Patent is a method for converting a ring network to a mesh network to increase overall network capacity while minimizing costs of conversion. The method is focused on optimizing the selection of ring network nodes that are converted into mesh nodes. '059 Patent, col. 1, ll. 51-65.

### **A. Claim 1: "takes into account the cost of conversion"**

Claim 1 of the '059 Patent provides in relevant part: "selecting ring nodes for conversion from ring node to mesh node according to a strategy that increases and optimizes demand served by the telecommunications network, wherein the strategy takes into account the cost of conversion of the selected nodes from ring node to mesh node." Schneider Decl., Ex. A, '059 Patent, col. 12, ll. 1-6. AT&T argues that neither the claim language, the specification, nor the prosecution history defines what it means to "take into account the cost of conversion." As a result, AT&T argues that this term is indefinite because it does not adequately notify the public of what is within the boundary of the claim. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1340, 1347 (Fed. Cir. 2005).

AT&T argues that "takes into account" is ambiguous because it does not specify whether the claim seeks to minimize some, all or only certain costs or reduce some, all or only certain costs by a set percentage, or it could broadly mean consideration of any type of cost on any basis for any reason. AT&T refers to the specification where it describes three strategies for performing the conversion, but argues that none of these strategies describe what it means to "take into account" cost. Additionally, AT&T notes that cost is only mentioned in one of the

strategies. Schneider Decl., Ex. A, '059 Patent, col. 5, l. 31 - col. 6, l. 60. The third strategy discusses cost in reference to a “complete optimization model” resulting in a “minimum total cost, taking into account that there is a cost for ADM node conversion and a small but non-zero cost (for example for network management software changes) to permit re-use of an ADM as a chain element in the resulting logical mesh design.” Schneider Decl., Ex. A, '059 Patent, col. 6, ll.32-29. However, AT&T contends that this language does not define what it means to “take into account” and should be found indefinite similar to *Union Pacific*, where the term “comparing” was found to be indefinite because the specification did not discern whether the technical or lay meaning should be applied. *Union Pacific Res. Co. v. Chesapeake Energy Co.*, 236 F.3d 684, 692 (Fed. Cir. 2001).

AT&T also takes issue with the term “cost of conversion” because the claim does not specify which costs are to be considered. AT&T argues that a person of ordinary skill in the art would understand that there are myriad “costs” involved in network reconfiguration. Schneider Decl., Ex. G, Lanning Decl., ¶ 182. AT&T also contends that the specification suggests that certain costs are not considered while not providing sufficient teaching on which costs are to be considered. Schneider Decl., Ex. A, *see, e.g.*, '059 Patent, col. 9, ll. 19-21 (“Abandoned segments of ring capacity may give rise to salvage benefits, but this is not taken into account in the model described above.”). Thus, AT&T argues that this term is without boundaries and is invalid because the specification does not disclose the costs to be considered. *See* Schneider Decl., Ex. G, Lanning Decl., ¶ 184. AT&T also references the *Honeywell* decision where the claim at issue required taking a measurement, but did not disclose the method and the specification did not enable all possible methods so the court found the term invalid. *Honeywell*

*Int'l, Inc. v. Int'l Trade Comm'n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003).

TR Labs construes “takes into account the cost of conversion” to mean “considering the direct or indirect expense associated with changing ring nodes to mesh nodes.” Claim Terms w/ Parties’ Constructions, p. 24, December 7, 2011. TR Labs contends that the ordinary meaning, as understood by persons skilled in the art, should be applied. *Honeywell*, 341 F.3d at 1338 (“[t]he terms used in the claims bear a presumption that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.”).

TR Labs cites to AT&T’s expert, Mark Lanning, to support the ordinary meaning construction for this term. Mr. Lanning testified that the ordinary meanings for “takes into account” is “considers”; “conversion” is “to change from one form to another”; and “cost” “could be in the form of time . . . expenditure. . . an opportunity cost, something you lost out on. So cost can be many different things.” Butler Decl., Ex. A, Lanning Dep. 180:17-20; 180:14-16; 180; 133:2-14. Additionally, TR Labs notes that Mr. Lanning knew what was not included in the definition of “cost” such as capacity usage and delay in internet traffic. *Id.* at 133:15 - 135:25. Accordingly, TR Labs argues that its construction is consistent with the ordinary meaning of the constituent terms within the claim language, and describes the inventive aspect of the ‘059 Patent. Butler Decl., Ex. B, Rouskas Decl. ¶¶ 2, 4. TR Labs also refers to Figure 6 in the ‘059 Patent, as a depiction of how one takes into account the cost of conversion, and the specification describes Figure 6 as “the effect of the conversion cost on the total evolution cost to a growth factor  $\lambda = 2$ .” ‘059 Patent, Figure 6; col. 11, ll. 15-16; Butler Decl., Ex. B, Rouskas Decl. ¶ 3. TR Labs distinguishes *Union Pacific* because there the court held that the term “comparing” was not related to the claimed process, but here TR Labs argues that this term does describe the claimed

process of converting ring nodes to mesh nodes. *Union Pacific*, 236 F.3d at 692.

In response, AT&T argues that TR Labs' ordinary meaning construction of this term is divorced from the context of the claim and the specification as a whole, which is improper.

*Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005).

The Court finds that the '059 specification describes and claims a process that is directed to converting "selected nodes from ring node to mesh node" in a cost efficient manner by re-using, in part, the ring network's existing architecture. '059 Patent, col. 12, ll. 5-6. Therefore, when looking at the '059 Patent overall and in context with this term, the Patent focuses on the process of converting ring networks to mesh networks and is not directed to calculating the conversion costs involved in that process. AT&T argues that the '059 Patent fails to adequately describe how costs should be "taken into account" and which costs should be taken into account. However, these considerations are not necessary to execute the claimed process of selecting ring nodes for conversion from ring node to mesh node. Accordingly, the *Union Pacific* case can be distinguished from the present matter because the term "takes into consideration the cost of conversion" does not render one skilled in the art to be incapable of completing the claimed conversion process. *Union Pacific*, 236 F.3d at 692.

The Abstract of the '059 Patent supports the Court's view that the claimed process results in a cost savings, but it is not a variable to be calculated with precision as to how much is saved when existing ring networks are converted to mesh networks. The abstract provides:

Ongoing growth in transport demand is served while deferring or eliminating expenditure for additional capacity by reclaiming the protection capacity and inefficiently used working capacity in existing multi-ring network. Reclamation is through re-design of the routing and restoration in the network using mesh principles within the pre-

existing ring capacities. The installed working and protection capacity of existing rings is viewed as a sunk investment, an existing resource, to be “mined” and incorporated into a mesh-operated network that serves both existing and ongoing growth. ‘059 Patent, Abstract.

The Patent teaches that the process of “ring mining” can be achieved while “taking into account the cost of conversion” or as TR Labs has construed as “considering the direct or indirect expense associated with changing ring nodes to mesh nodes.” The idea that the conversion process is cost effective because it is re-purposing pre-existing ring architecture is not insolubly ambiguous.

**B. Claim 1: “increases and optimizes demand served”**

AT&T argues that the ‘059 Patent does not disclose what is meant by the term “increases and optimizes demand served” found in Claim 1. Again, Claim 1 provides in relevant part: “selecting ring nodes for conversion from ring node to mesh node according to a strategy that increases and optimizes demand served by the telecommunications network . . .” Schneider Decl., Ex. A, ‘059 Patent, col. 12, ll. 1-4.

AT&T argues that the ‘059 Patent contemplates optimization, but only in reference to (1) maximizing capacity, (2) minimizing “capacity investment,” and (3) minimizing cost. Schneider Decl., Ex. A. ‘059 Patent, col. 5, ll 37-39; col. 6, ll. 23-24; col. 6, ll. 32-35. AT&T argues that the specification provides no examples of how to optimize “demand served,” nor are there examples where “demand served” can be both increased and optimized. AT&T explains that “demand served” does not have a commonly understood meaning in the art, so the term must be defined in the specification, but AT&T argues that here it is not. Schneider Decl., Ex. G,

Lanning Decl., ¶ 177. AT&T contends that these terms are left to speculation as to whether any increase in “demand served” results in an optimal change or whether some increases are not optimal, and from whose perspective must “demand served” be increased? AT&T also relies on the decision, *Datamize, LLC v. Plumtree Software, Inc.*, where the Federal Circuit held “aesthetically pleasing” to be indefinite because it included a subjective element. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005).

TR Labs construes “increases and optimizes demand served” to mean “increases in a more effective and efficient manner the total amount of traffic that can be carried by the telecommunications network.” Claim Terms w/ Parties’ Constructions, p. 24, December 7, 2011. TR Labs’ construction relies on the ordinary meaning of the constituent terms as defined in the telecommunications art. Butler Decl., Ex. B, Rouskas Decl. ¶ 5. TR Labs again references AT&T’s own expert, Mr. Lanning, who testified that “increases” means “adds,” “optimizes” means “providing the best solution based on the criteria used,” and “demand” means “the required usage.” Butler Decl., Ex. A, Lanning Dep. 179:23-25; 180:1-5; 180:6-13. TR Labs also refers to the specification in support of its construction, which provides: “anyone skilled in the art may readily calculate differential growth factors for each origin-destination (O-D) pair so that the total absolute growth is maximized, or to maximize total sustainable growth subject to specific upper limits on the requirements on each O-D pair.” ‘059 Patent, col. 6, ll. 3-8. TR Labs argues that one of ordinary skill in the art would know that the goal of maximizing growth subject to upper limits on demand requirements is the same as increasing traffic in a “more effective and efficient manner.” Butler Decl., Ex. B, Rouskas Decl. ¶ 5. Furthermore, TR Labs argues that “demand served” and the increase and optimization thereof are all concepts that are



capable of quantification. *Id.* at ¶ 6. Because a quantative metric has the ability to resolve ambiguity in a functional limitation, TR Labs argues that the term is not indefinite and is not comparable to the subjective element at issue in *Datamize, Halliburton Energy Servs. v. M-I LLC*, 514 F.3d 1244, 1255-56 (Fed. Cir. 2008) (“the ambiguity [of a claim limitation defined in purely functional terms] might be resolved by using a quantative metric . . . rather than a qualitative functional feature.”). *See also Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342 (Fed. Cir. 2005).

AT&T rejects TR Lab’s construction of this term by arguing that TR Labs has simply substituted “increases and optimizes” with indefinite language of “effective and efficient,” and removed the “optimization” requirement from the claim.” AT&T argues that if the ordinary meaning of optimizes is “providing the **best** solution based on the criteria used” then TR Labs’ construction only requires a better solution, not the best solution. AT&T again argues that TR Labs’ ordinary meaning construction is divorced from the specification and the context of the claims as a whole, which is improper. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005).

AT&T also contends that TR Labs improperly attempts to equate "demand served" with "capacity." Schneider Decl., Ex. G, Lanning Decl. ¶ 179. AT&T relies on the specification to conclude that these concepts are distinct and not synonymous. *Id.* at ¶ 177. AT&T believes that the specification differentiates "demand served" from capacity in Claim 5 of the '059 Patent, which provides in relevant part: "adding capacity on a span of the telecommunications network to increase the demand served by the telecommunications network." Schneider Decl., Ex. A, '059 Patent, col. 12, ll. 25-27. The specification further provides that the "formulation minimizes

the total capacity investment needed to meet a demand that is  $\lambda$  times the original demand served by the ring design." *Id.* at col. 6, ll. 23-25. "The formulation is subject to a series of constraints, that (1) scale the demand served to be  $\lambda$  times the original demand, (2) ensure that there is enough working capacity in the network to support the routing of all the demands . . ." *Id.* at col. 5, ll. 40-43.

The Court finds that "increases and optimizes demand served" is not indefinite when considered in the greater context of the specification and the claims. First, the '059 Patent Abstract discusses that once a ring network is converted into a mesh-operated network it "serves both existing and ongoing growth" in "transport demand," that is telecommunications traffic. '059 Patent, Abstract. AT&T also highlights several passages in the specification where "demand served" is discussed in conjunction with capacity. AT&T attempts to isolate "demand served" from capacity, but the specification teaches that once a ring network is converted to a mesh network, the added capacity enables the network to handle a greater volume of telecommunications traffic. The specification provides: "adding capacity on a span of the telecommunications network to increase the demand served by the telecommunications network" '059 Patent, col. 12, ll. 25-27. As to increase in demand, the specification states that "[o]ver a third of the test cases could sustain a doubling in demand just by ring-to-mesh conversion." *Id.* at col. 5, ll. 55-57. The specification also teaches optimization as "effective and efficient" when it describes how the "formulation minimizes the total capacity investment needed to meet a demand that is  $\lambda$  times the original demand served by the ring design." *Id.* at col. 6, ll. 23-25. The specification indicates that less expenditures are required in a ring converted to a mesh-operated network to meet growing telecommunications traffic, which is equivalent to

“effective and efficient.”

**C. Claim 6: “re-using selected ones of plural add-drop multiplexers within the ring”**

Claim 6 of the '059 Patent is a dependent claim that provides, "the method of Claim 1 further comprising the step of re-using selected ones of plural add-drop multiplexers within the ring." '059 Patent, col. 12, ll. 29-31. AT&T argues that this term is indefinite because during prosecution of the '059 Patent, the applicants distinguished the "Sharma" prior art reference by arguing that Sharma was not relevant since the rings in Sharma were not removed during conversion:

A thorough review of Sharma demonstrates that the disclosure of Sharma is not relevant to the claimed invention. Nothing in Sharma teaches conversion of a ring network into a mesh network. In Sharma, all of the rings remain as rings . . . Thus, Sharma is directed to how the signals propagate around the ring, but the ring is not removed. Schneider Decl., Ex. F, Oct. 24, 2006, Amendment p. 3.

From this statement, AT&T concludes that the applicants argued that their claimed invention involved the removal of the rings during the conversion process, unlike Sharma. Thus, AT&T argues that one of ordinary skill in the art would understand that add-drop multiplexers (“ADMs”) cannot be re-used within the ring if the ring has been removed, rendering this term indefinite.

In opposition, TR Labs defers to Mr. Lanning's construction of "re-using" as "re-using ADMs in their original form" in its standard configuration with no additional hardware or software. Butler Decl., Ex. A, Lanning Dep. 177:11 - 178:2. TR Labs argues that re-using ADMs is also supported in the specification, which provides: "selected ones of plural add-drop

multiplexers from the pre-existing rings may be re-used within the target mesh (or p-cycle) architectures." '059 Patent, col. 2, ll. 12-14. TR Labs also contested AT&T's interpretation of the prosecution history involving the Sharma prior art reference in its *Markman* brief. TR Labs argued that none of the nodes in Sharma were converted from ring nodes to mesh nodes, unlike the conversion process described in the '059 Patent.

The Court addressed the dispute between the parties regarding the Sharma prior art reference, and found that the Patent teaches about re-using the ring. *Markman* Memorandum and Order, August 10, 2012 (see construction of "breaking connections between protection links at the selected ring nodes"). Generally, the '059 Patent describes a method for how to optimally convert a ring network to a mesh network in a cost efficient manner. Consistent with the claimed inventive process, the specification provides that "the ring mining approach may be used to select at which nodes to break into rings, where to add new capacity, which ADMs to re-use and which segments of ring capacity to abandon to avoid conversion costs." '059 Patent, col 9, ll.15-18. The specification further provides that "[r]e-used ADMs are those that play a cost-effective role in a chain of the resulting logical mesh." '059 Patent, col. 11, ll. 50-51. The summary of the invention also supports the claim language that ADMs are re-used:

selected ones of plural add-drop multiplexers from the pre-existing rings may be re-used within the target mesh (or p-cycle) architectures and selected segments of ring capacity in the telecommunications network may be abandoned, salvaged, or left for future use should there be unexpected shifts in the demand patterns. '059 Patent, col. 2, ll. 12-17.

Accordingly, the specification discloses how ADMs are re-used and not entirely removed from the network so that one skilled in the art would be able to practice the invention as claimed, or design around it.

### III. '734 Patent

#### A. Claim 1: "local interface port"

The '734 Patent discloses a "nodal switching device," which is defined in the Patent as a special type of network switching device that is adapted for network restoration under a p-cycle concept prior to a failure. '734 Patent, col. 1, ll. 49-55. Claim 1 of the '734 Patent provides in relevant part: that the nodal switching has "plural local interface ports, each local interface port being connected by a communication link within the nodal switching device . . .". *Id.* at col. 6, ll. 32-34.

AT&T argues that "local interface port" is indefinite because the term does not have a commonly understood meaning in the art, and the specification for the '734 Patent uses the term inconsistently. For example, AT&T cites to the specification where it provides: "traffic going into and out of each working link is depicted as an internal traffic source/sink T1-T4 which are **provided from** the Local Interface ports of the nodal switching device 10." Schneider Decl., Ex.B., '734 Patent, col. 3, ll. 11-14 (emphasis added). In contrast, AT&T refers to the specification where it suggests that "local interface ports" are "T1-T4." *Id.* at col. 4, ll. 57.

AT&T rejects TR Labs' proposed construction for this term, which is "a mechanism that allows the adding and dropping of communications traffic to and from the telecommunications network," because it conflicts with how the specification describes the local interface ports.

Claim Terms w/ Parties' Constructions, p. 17, December 7, 2011. AT&T notes that the specification describes four "sides" to the nodal switching device 10, and that the East, West, and South are network interfaces and the North interface, which is omitted from the figures, "would be a placeholder for the local input/output access to working signals . . ." Schneider Decl., Ex.B.,

‘734 Patent, col. 2, ll. 37-38. AT&T argues that one skilled in the art would understand this description as referring to the add/drop ports of an ADM, which is identified separately from the “local interface ports.” Schneider Decl., Ex. G, Lanning Decl. ¶ 108.

TR Labs contends that “local interface port” is not indefinite when the specification is read in its entirety. TR Labs refers to the specification where it describes Figure 1 as representing the three sides of the claimed nodal switching device, which “are referred to as East, West and South (North being omitted but would be a placeholder for the local input/output access to working signals.)” ‘734 Patent, Figure 1; col. 2, ll. 35-38. TR Labs argues that one of ordinary skill in the art would understand this description to mean that the “local interface port” is the North port omitted in the illustration of Figure 1. Butler Decl., Ex. B, Rouskas Decl., ¶ 9.

The Court finds that when reviewing the term “local interface port” within the context of the specification as a whole, the term is not indefinite. Following the *Markman* hearing, the parties agreed to three sets of definitions for first, second, and third network interfaces. Each of these network interfaces are a “point of connection to the add drop multiplexer, **other than at the add-drop ports.**” Claim Terms w/ Parties’ Constructions, p. 15-16, December 7, 2011 (emphasis added). The parties further agreed that the “North” interface corresponds to the add drop ports. Markman Tr. Day 3, 396:20 -397:16. The specification provides that the nodal switching device has four sides, which are “referred to as East, West, and South (North being omitted but would be a placeholder for the local input/output access to working signals.)” ‘734 Patent, Figure 1; col. 2, ll. 35-38. It follows that the “local interface port” is located at the North port, which is the add drop port.

AT&T argues that the specification is inconsistent when it states that “traffic going into

and out of each working link is depicted as an internal traffic source/sink T1-T4 which are **provided from** the Local Interface ports of the nodal switching device 10.” ‘734 Patent, col. 3, ll. 11-14 (emphasis added). However, the Court finds that the specification does not equate the “local interface port” with T1-T4. The specification describes T1- T10, as depicted throughout the Figures of the ‘734 Patent, as “traffic sources” flowing through the nodal switching device. *See, e.g.*, ‘734 Patent, col. 4, ll. 34-35 (“When failure 1 takes place the traffic that was flowing between traffic sources T1 and T5 is severed.”). As such, T1-T4 as illustrated in Figure 7 is not the “local interface port.” The specification indicates that these traffic sources are “provided from” the local interface port, meaning that these “traffic sources” (T1-T4) are coming in from the add drop port, which was established earlier in the specification as the North port for “local input/output access.” ‘734 Patent, col. 2, ll. 35-38.

#### **IV. ‘880 Patent**

##### **A. Claim 7: “preferred path”**

The '880 Patent discloses a method for establishing preconfigured cyclical routes in a packet network prior to a network failure. Claim 7 of the '880 Patent is dependent on Claim 4, and provides: "upon failure of a given node, routing all data packets whose preferred path includes the given node onto the preconfigured cycle corresponding to the given node." Schneider Decl., Ex. C, '880 Patent, col. 6, ll. 61-63.

AT&T argues that "preferred path" does not have a standard meaning in the art, and its meaning depends on context. Schneider Decl., Ex. G., Lanning Decl. ¶ 145. AT&T argues that "preferred path" is only found in Claim 7 and is not used anywhere else in the specification. *Id.* Accordingly, AT&T concludes that this term is indefinite because it is susceptible to speculation

and subjective opinion. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005). AT&T contemplates "preferred path" as having a range of meanings including the fastest, shortest, or closest path or one with the lowest traffic.

TR Labs construes "preferred path" to mean "the path that packets take under normal operation (i.e. no failures)." Claim Terms w/ Parties' Constructions, p. 32, December 7, 2011. TR Labs refers to Figures 2A and 2B of the '880 Patent as a depiction of this term. In Figure 2A, the "given node" that fails is node 10. Butler Decl., Ex. B, Rouskas Decl. ¶ 10. TR Labs explains that the "preferred path" that includes the "given node" is the path over which traffic would have been carried in the absence of a failure, and includes nodes 12, 10, 22, and 14. *Id.* TR Labs concludes that this teaching is consistent with its proposed construction. *Id.* In contrast, TR Labs argues that the non-preferred path is when there is a network failure and data packets are re-rerouted along the preconfigured cycle as demonstrated in Figure 2B. *Id.* at ¶ 11; *see also* '880 Patent, col. 6, ll. 60-63.

AT&T rejects TR Labs' construction as reading the term "preferred" out of the claim. AT&T interprets TR Labs' construction to mean that wherever the packets end up going is the "preferred path" and under this construction there would never be a non-preferred path. Thus, AT&T concludes that this term is indefinite because TR Labs' construction is not narrowing, and allows any path taken by a packet to be a "preferred path." *Halliburton Energy Servs. v. M-I LLC*, 514 F.3d 1244, 1253 (Fed. Cir. 2008).

The Court finds that TR Labs' proposed construction for "preferred path" as "the path that packets take under normal operation (i.e. no failures)" is adequately disclosed in Figures 2A and 2B of the '880 Patent. The background of the invention discusses how packet networks generally



operate wherein the IP packet is “routed from its source to destination by a series of routers with each router sending the packet closer to its destination by consulting its local routing table . . . the route the packet takes is determined directly by the sequence of routers it ends up taking.” ‘880 Patent, col. 1, ll.26-33. Thus, TR Labs’ construction that a “preferred path” is “the path that packets take under normal operation,” which is determined by a sequence of routers is consistent with the specification. It also follows that the non-preferred path is when the packet has to travel around the p-cycle, instead of the route it travel according to the local routing table. The Court finds that TR Labs’ construction of this term is consistent with the process of how packets are routed from its source to destination so that “preferred path” is not indefinite.

## **V. ‘835 Patent**

### **A. Claims 6-8: "attribute representative of the number of spans and/or linking nodes in each said path at any given point along said path"**

The '835 Patent addresses a technique for restoring a circuit switched network after a failure by transmitting restoration signals throughout the network to search for and form potential restoration paths. AT&T Br. p. 18; '835 Patent, col. 1, ll. 6-17. Claims 6, 7, and 8 of the '835 Patent provides in relevant part: "attribute representative of the number of spans and/or linking nodes in each said path at any given point along said path" '835 Patent, col. 38, ll. 49-62.

AT&T argues that this term is indefinite because it attempts to associate an "attribute" with two different network elements: "linking nodes" and spans. AT&T further argues that the specification does not clarify how a single attribute would represent two different numbers: the number of spans and the number of linking nodes. *See* Schneider Decl., Ex. G, Lanning Decl. ¶ 56.

TR Labs construes this term to mean "an element whose value at any node along each

said path is a function of the number of links between nodes and/or nodes themselves in each said path between the node originating the signal and said node." Claim Terms w/ Parties' Constructions, p. 6, December 7, 2011. TR Labs explains that there is only one attribute (value) for a "number of spans," and one attribute (value) for "linking nodes." Butler Decl., Ex. B., Rouskas Decl. ¶ 12. TR Labs also cites to Mr. Lanning's deposition to demonstrate that he was able to understand the claim language and acknowledged that an attribute can be used to reflect the number of spans in a path at a given point along the path and an attribute may be used to reflect the number of linking nodes in the path at any given point. Butler Decl., Ex. A, Lanning Dep. 66:6- 67:5. TR Labs further clarifies that to invoke the "and" within the claim limitation is if one were to assign an attribute to a set of spans and to a set of linking nodes, but there would be a single attribute for each network element, and this is consistent with the claim language. Butler Decl., Ex. B., Rouskas Decl. ¶ 12.

In response, AT&T argues that TR Labs' construction attempts to rewrite the claims to read "either/or" instead of "and/or," which is improper. *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008) ("Courts cannot rewrite claim language.").

The Court finds that upon review of this claim language, it does not suggest that a single attribute represents two network elements as AT&T argues. One skilled in the art would recognize that an attribute only represents one element so there would be an attribute for spans and a different attribute for links. Mr. Lanning testified that one can use an attribute to represent linking nodes, and the same is true for using an attribute to represent spans, but Mr. Lanning gave no indication that one attribute would be used to represent both linking nodes and spans. Butler Decl., Ex. A, Lanning Dep. 66:6- 67:5.

The claim language provides that there may be attributes for both links and spans, which is the "and" limitation, recognizing that there are two different attributes to represent these network elements. The "or" limitation allows for a single attribute for either spans or links. TR Labs has not attempted to change the claim language to "either/or" since "or" already provides that one skilled in the art may assign an attribute to a span or assign an attribute to linking nodes. Accordingly this term is not indefinite.

## **VI. Conclusion**

Based on the aforementioned reasons, the Court finds that AT&T and Verizon have failed to prove by clear and convincing evidence that the claim terms are indefinite within Claim 1 and 6 of the '059 Patent, Claim 1 of the '734 Patent, Claim 7 of the '880 Patent, and Claims 6-8 of the '835 Patent. Accordingly, AT&T and Verizon's motion for partial summary judgment for invalidity based on indefiniteness is denied.

**ORDER**

**IT IS** on this 10<sup>th</sup> day of September, 2012

**ORDERED** that AT&T's motion for partial summary judgment filed in the case captioned, *Alberta Telecommunications Research Centre v. AT&T Corp.*, No. 09-3883 (PGS), is hereby denied (ECF No. 69), and it is further

**ORDERED** that Verizon's motion for partial summary judgment filed in the case captioned, *Alberta Telecommunications Research Centre v. Verizon Services Corp.*, No. 10-1132 (PGS), is hereby denied (ECF No. 61).

s/Peter G. Sheridan  
PETER G. SHERIDAN, U.S.D.J.